2. Subacute submassive viral hepatitis.
3. Diffuse fatty metamorphosis on nutritional basis with central predominance and focal necrosis.
4. Fatty metamorphosis with beginning fibrosis.
5. Postnecrotic cirrhosis with hepatocellular damage.
6. Cavernous hemangiomata with bile stasis in surrounding parenchyma.
7. Undifferentiated hepatic tumor; primary hepatic tumor probably from Kupffer cells.
8. Acute toxic hepatitis with peripheral fatty changes (phosphorus, chloroform, antifreeze).
9. Focal hepatic necrosis in sickle cell crisis.
10. Echinococcus cyst.
THE MISSISSIPPI ASSOCIATION

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THE COLLEGE OF AMERICAN PATHOLOGISTS

A

SEMINAR

DISEASES OF THE LIVER

Conducted by

HANS POPPER, M.D.

Hotel King Edward - - May 12, 1958
CASE 1

A 24 year old white female was well and healthy during a pregnancy which was terminated on September 23, 1957, by caesarian section because of a previous pelvic fracture. On the day of operation she received a transfusion of 500 cc of blood. Approximately 48 days later, it was noted that her skin was turning yellow. A day or so later she developed fever. Her skin progressively became darker. About 6 days after the onset of visible jaundice she became irrational. She was hospitalized in a local hospital on November 16, 1957. She became comatose. She was transferred to the University Medical Center on November 18, 1957, and expired four hours after admission.
CASE 2

This was a 31 year old colored female admitted to the hospital on July 9, 1957, with chief complaints of yellow eyes, fever, and rash. The jaundice dated to March, 1957, when she first noted scleral jaundice. A few days following this she started having fever and the skin rash. On examination, she appeared obviously jaundiced with the skin rash covering the entire body. Peripheral lymph nodes were enlarged. The liver was palpable one fingerbreadth below the right costal margin. Laboratory examination revealed a hemoglobin of 11.2 grams and a white count of 9,050. The total bilirubin was 25.6 mg., the cholesterol 266 mg. and the glucose was 60 mg. The protein determination was 7.05 grams with 1.88 grams of albumin and 5.19 grams of globulin. The alkaline phosphatase was 32.3 units, the thymol turbidity 11 units and the cephalin flocculation 4-plus. The creatinine was 3.1 mg.% and the urea nitrogen 25.4 mg.%. The abdomen became somewhat distended. The patient was nauseated and vomited frequently and she became quite restless. She expired suddenly 12 days after admission. At autopsy, the liver had a weight of 1300 grams. The capsule was smooth, but riddled with innumerable slightly elevated yellowish nodules giving it a somewhat granular appearance. It was firm in consistency and cut with increased resistance. The cut surface disclosed a yellowish tissue which on close observation appeared to be divided into irregularly outlined lobules separated by broad bands of soft homogeneous pinkish or red tissue.
CASE 3

This three and one-half year old colored child was admitted to the hospital on January 13, 1958. He had been vomiting for several weeks and during the past few days had not been able to retain anything except a small amount of fluid. The patient had had "meningitis" at three weeks of age and since that time, he had been a complete invalid. He was also mentally deficient. Death occurred ten minutes after admission. The brain weighed 300 grams and showed extreme atrophy of both cerebral hemispheres. The liver weighed 300 grams. The capsule was smooth, glistening and light tan in color. The cut surface had a rather tan homogeneous yellowish appearance throughout and it cut with decreased resistance.
CASE 4

This 45 year old white male had a gastric resection on January 22, 1958, presumably for what was thought to be a bleeding duodenal ulcer. A history of chronic alcoholism was not obtained until following the surgery. Post-operative course was stormy and death occurred on January 29, 1958. The liver weighed 2500 grams and the capsule was light brown and smooth. The cut surface had a light yellow color and the liver lobules could not be readily made out. An acute ulcerative esophagitis and esophageal varices were also found.
CASE 5

This white male age 53, was a chronic alcoholic and a diabetic. The duration of the diabetes was not stated in the record. In August, 1957, his abdomen enlarged, the neck veins engorged, subcutaneous ecchymoses developed and he had orthopnea. His wife noted that he was very irritable and unreasonable. The blood pressure was 160/100 and the blood glucose was 220 mg. %. He was hospitalized and abdominal paracentesis produced 4000 cc. of fluid. On January 6, 1958, during an eight hour period he vomited copious amounts of bright red blood on five occasions and had two tarry stools. He was given multiple transfusions and had two abdominal paracenteses. The blood glucose was 250 mg. %, the BUN 80 mg. %, and the creatinine 0.8 mg. %. On January 16, he was semicomatose and confused and again vomited blood and had several tarry stools. He died on January 18. The liver weighed 1350 grams and was nodular. There were esophageal varices with erosion of overlying mucosa.
CASE 6

This 50 year old white male died on December 24, 1957, approximately seven days following a gastric resection for duodenal ulcer. Death was due to complications of the surgery, including dehiscence of the gastrojejunostomy stoma, dehiscence of the duodenal stump, gastric hemorrhage from the region of the anastomosis and a sub-diaphragmatic abscess on the left. The liver weighed 2300 grams. There was some rounding of the margins. The capsular surface had a yellowish-brown hue and on transverse section, the cut surfaces appeared yellowish-brown and somewhat mottled. In the right lobe of the liver approximately 4 cm. above the gallbladder head was a spongy red zone, irregular in shape and measuring 3.5 cm. in maximum dimension.
CASE 7

This 50 year old colored male had three hospital admissions in 1956. The first was in June, 1956, when a diagnosis of non-functioning gall bladder was made. He returned in August, 1956, with a large mass in the epigastrium and on exploration a large bluish tumor involving chiefly the right lobe of the liver was found. Attempts at aspiration of this resulted in rather severe hemorrhage and the mass was not biopsied. He was admitted a third time on December 3, 1956, at which time he complained of pain in the stomach and extreme weakness. The abdomen at this time was markedly distended. The hemoglobin was 7.5 grams, hematocrit 24, and the white blood count 14,400 with 90% neutrophils, 9 lymphocytes and 1 monocyte. An x-ray showed elevation of both leaves of the diaphragm. He became progressively weaker in spite of supportive therapy and expired on December 21, 1956. At autopsy, the liver weighed 7250 grams. It was symmetrically enlarged and the capsule was somewhat nodular, varying from bright red to yellow to dusty bluish in coloration. The cut surface shows the parenchyma to be practically replaced by closely spaced nodules varying from a few mm. to 4 cm. in diameter. Some of these appeared confluent while others were sharply demarcated from the surrounding parenchyma. The nodules had a quite variegated appearance, varying from bluish to yellowish in color and mottled by friable red zones. In places, the largest of these had a somewhat spongy reticular or cribiform appearance.
This obese white female graduate nurse age 47 years, had attempted suicide in 1955. On November 16 and 17, 1957, she had severe nausea, vomiting and diarrhea. These symptoms abated during the following two days, but she had polydipsia, malaise, generalized aching and complained of severe back pain. Her physician made a diagnosis of "flu" although she was afebrile. Early on November 21, she became unconscious without obtainable pulse or blood pressure. The skin was slightly icteric. The urine contained a trace of albumin and was positive for bile and urobilinogen. The hemoglobin was 13 grams, WBC 13,300 with the differential 1 myelocyte, 1 metamyelocyte, 21 bands, 46 segmenters, 17 lymphocytes and 14 monocytes. There were 2 metarubricytes per 100 WBC. The patient died at 3:10 p. m. on November 21, 1957. At autopsy, there were many dark red areas of hemorrhage in the omentum, retroperitoneal fat, mediastinal fat and epicardium. The liver weighed 2,200 grams and its cut surface was yellow with an accentuated lobular pattern.
A 15 year old colored male was first admitted to the University Medical Center on November 16, 1957. History revealed that he had been diagnosed as having sickle cell anemia in August, 1957, and had been given a blood transfusion (exact date unknown). Since that time he had been asymptomatic until 4 days before admission when he felt sick and had vague abdominal pain. His urine rapidly became very dark and his eyes turned yellow. Two days before admission he began vomiting and the chief abdominal discomfort was in the right upper quadrant. On admission his temperature was 103.4. Laboratory findings included a hematocrit of 20%, NPN 94 mg. %, total bilirubin 82.6 mg. % with direct bilirubin 20.2 mg. %; cephalin flocculation 4-plus and thymol turbidity of 6.2 units. His course continued rapidly downhill. Approximately 48 hours before death his prothrombin time was reported as 1.2% of normal. He expired 5 days after admission.
CASE 10

This patient was a 37 year old colored female who died in the Mississippi State Sanatorium of extensive pulmonary tuberculosis. She had been a lifelong resident of Yazoo County, Mississippi, with no history of any residence outside the state. The section is from a well-demarcated 2.2 cm. cyst found in the liver. The cyst wall was composed of white soft membrane about 1mm. in thickness with a second underlining more closely adherent to the liver parenchyma.
CASE 11

This patient was a 24 year old colored male who was admitted to the Baptist Hospital on April 10, 1954, approximately 45 minutes after receiving two stab wounds. One of these was in the epigastric region and on exploration was found to involve the dome of the liver. Approximately 2500 cc. of blood was present in the peritoneal cavity. The laceration was sutured and the bleeding checked. Post-operatively he did well and was discharged on April 20.

His second admission was on May 22, 1954, when he was admitted with complaints of lassitude, nausea and scleral icterus. The hemoglobin was 8.5 grams. The urine was positive for bile. The prothrombin time was 100% of normal. The indirect Van den Bergh was 2.0, thymol turbidity 1.6 units. Occult blood was present in the stool. The cephalin flocculation was 2-plus. He was discharged on June 1, 1954, with a hemoglobin of 12 grams and a hematocrit of 39 vol. %.

The final admission was on June 13, 1954. Approximately one hour before admission, he had vomited some tarry coffee-ground material. He continued to have severe gastrointestinal hemorrhage and on June 19, a laparotomy was performed and a gastric resection was done. On June 27, he again developed massive melena. Throughout the remainder of his hospital stay, he continued to bleed via the GI tract and between June 27 and August 28, 1954, he received a total of 70 pints of blood. The prothrombin time fell to 52% of normal in spite of large doses of vitamin K. Ascites and facial edema
developed. On July 24, laboratory work showed a cephalin flocculation of 1-plus, alkaline phosphatase of 29.4, Bodansky units and a bilirubin of 6.4. Prior to death on August 24 the epigastric incision became fluctuant and drained pus from which E. coli was isolated. In spite of continued vigorous supportive therapy, he died on August 28, 1954.

At autopsy, 6000 cc. of fluid were present in the peritoneal cavity. Dense adhesions were noted in the epigastrium. The anterior surfaces are plastered to the abdominal wall. A cavity involving the liver was found which connected by a tract to the main intrahepatic duct. This tract measures roughly 2.5 cm. across and was filled with blood clot as were the ducts, including the common bile duct. The remaining portion of the liver was deep green in coloration except for a zone on the posterior aspect of the right upper lobe which was honey-combed by small abscesses measuring up to 2.5 cm. across. There was also thrombosis of the portal vein.
Please send to:
Kenneth M. Heard, M. D.
The Miss. Baptist Hospital
Jackson, Mississippi